



netWorked Youth Research for Empowerment in the Digital society

Grant Agreement number: 727066

Platform v3

WP3_D3.4

V1.3

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1 Introduction

The WYRED project (netWorked Youth Research for Empowerment in the Digital society) (García-Peñalvo, 2016b, 2017; García-Peñalvo & Kearney, 2016) aims to provide a framework for research in which children and young people can express and explore their perspectives and interests in relation to digital society (Griffiths et al., 2017), which represents a technological ecosystem (García-Holgado & García-Peñalvo, 2016, 2018a, 2019; García-Holgado, Marcos-Pablos, Therón, & García-Peñalvo, 2019) for the project development.

This deliverable presents a summary of the status of the WYRED platform (García-Holgado & García-Peñalvo, 2018b; García-Peñalvo, 2016a, 2018; García-Peñalvo & Durán-Escudero, 2017; García-Peñalvo & García-Holgado, 2019; WYRED Consortium, 2017, 2018), where all the details about the architecture of the platform, the used technologies and the current functionalities can be found.

2 Technical report

In this section is described all platform information from the point of view of a developer.

2.1 Platform's architecture

The platform architecture has an important role in this project due to it is not a monolithic software because it has been created joining and adapting other developments. The main software used is Drupal a CMS (Content Management System), that it is the base for the platform. To achieve all WYRED requirements it has been installed some Drupal modules and it also has been developed some specific modules and the WYRED's theme.

The platform is deployed in three servers (Figure 1):

- A server based on Ubuntu 16.04 LTS with Apache, MySQL and PHP 7 that contains a Drupal 7 as the core of the WYRED Platform and a WordPress 5.2 to support the public portal of the project.

- A server based on Ubuntu 16.04 LTS with Apache, MySQL and PHP 7.2 that contains a LimeSurvey installation to provide questionnaires and evaluation support in the WYRED Ecosystem, and OwnCloud installation for document management.
- A server based on Ubuntu 16.04 LTS in a different network, in another country, to provide the user management and login access to the different tools of the WYRED Ecosystem. The server contains an Apereo CAS customized and deployed with Docker, and a WYRED API developed to save private user's information.

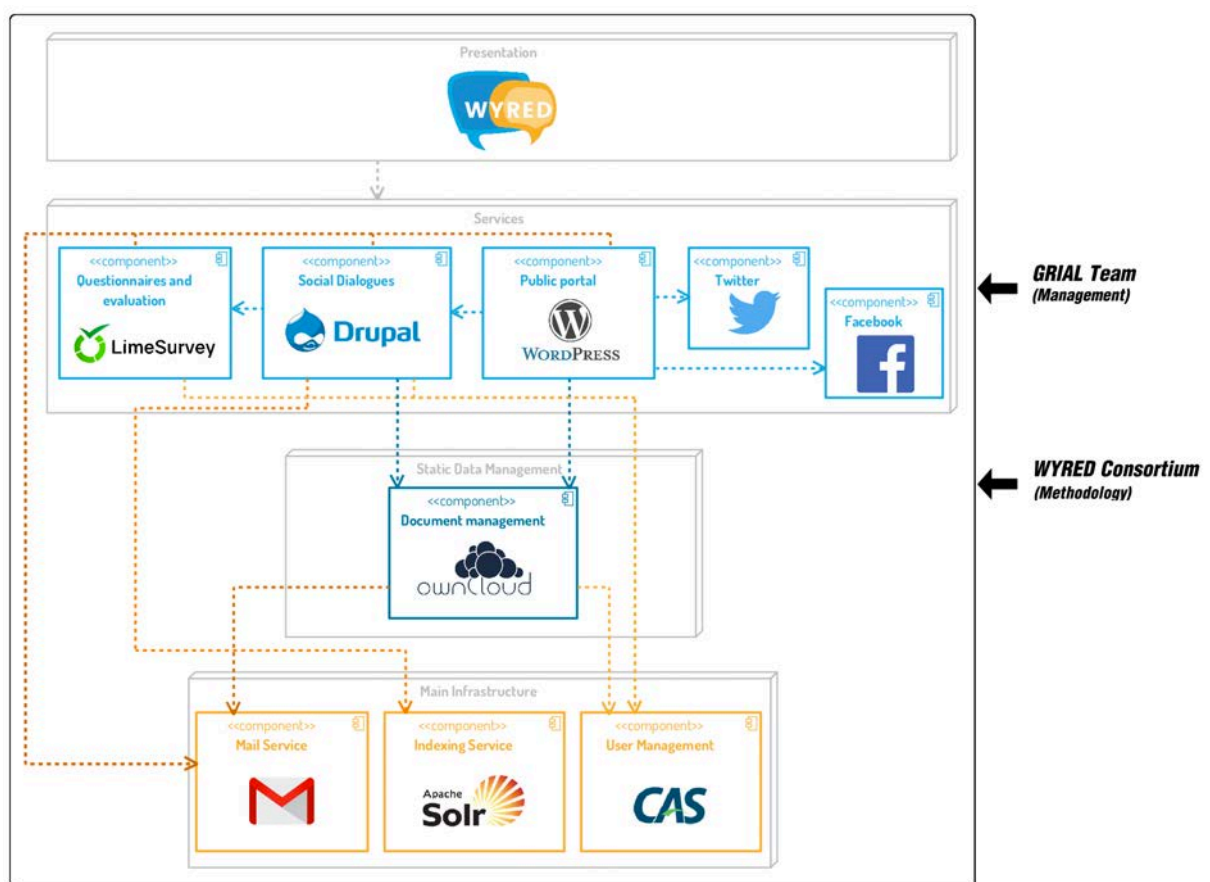


Figure 1. WYRED Platform architecture (García-Peñalvo, Vázquez-Ingelmo, García-Holgado, & Seoane-Pardo, 2019)

2.2 Platform technologies

•

Software	Type	Use	Technologies
Drupal	CMS	WYRED Platform	PHP, HTML, CSS, LESS, JS, Grunt
WordPress	CMS	WYRED website	PHP, HTML, CSS, JS
LimeSurvey	Surveys	Questionnaires and evaluation	PHP, HTML, CSS, JS
Apereo CAS	CAS	Single sign-on Manage users' private information	JAVA, Spring, SQL
MySQL	Database	Keep users' private information and inclusion data private	SQL
WYRED API	REST API	Access all information saved in the Database	PHP, Slim, SQL

Other technologies and skills have been also required:

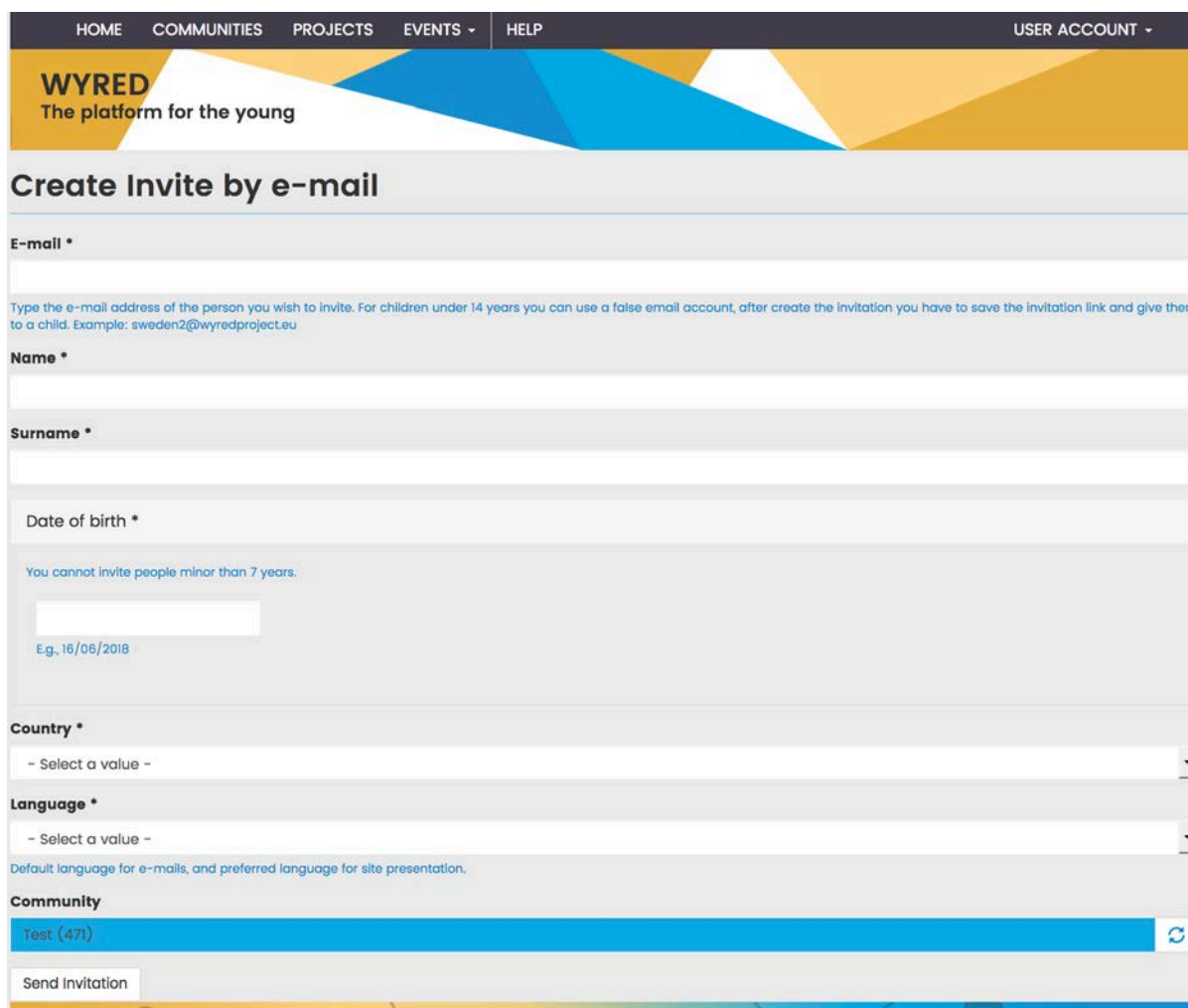
- Git as version control system. It's linked with Redmine a project management tool.
- A large knowledge in systems administration: scripts, Apache, MySQL, Docker, Let's encrypt to enable SSL, etc.

3 Results

The following section describes the main parts of the WYRED Platform with detailed captures of each view.

3.1 Registration

WYRED is a private community, for this reason in order to register, you have to get a personal invitation (Figure 2).



The screenshot shows the 'Create Invite by e-mail' form on the WYRED platform. The form is set against a header with navigation links: HOME, COMMUNITIES, PROJECTS, EVENTS, HELP, and USER ACCOUNT. The WYRED logo and tagline 'The platform for the young' are visible. The form fields include: E-mail (with a note: 'Type the e-mail address of the person you wish to invite. For children under 14 years you can use a false email account, after create the invitation you have to save the invitation link and give them to a child. Example: sweden2@wyredproject.eu'), Name, Surname, Date of birth (with a note: 'You cannot invite people minor than 7 years.' and an example 'E.g., 16/06/2018'), Country (dropdown menu), Language (dropdown menu, with a note: 'Default language for e-mails, and preferred language for site presentation.'), and Community (dropdown menu showing 'Test (471)'). A 'Send Invitation' button is at the bottom.

Figure 2. Personal invitation

With the invitation, a user can access to the registration page, where she will have to fill some fields to create his public and private profile and to configure how she wants to use the Platform (Figure 3).

Items marked with an asterisk (*) are required fields.

Username *

Username should be unique, it is used to differentiate you from other users and maintain your privacy. Spaces are not allowed; punctuation is not allowed except for periods, hyphens and underscores.

E-mail address *

A valid e-mail address. All e-mails from the system will be sent to this address. The e-mail address is not made public and will only be used if you wish to receive a new password or wish to receive certain news or notifications by e-mail.

Password *

Confirm password *

Provide a password for the new account in both fields.

Public data

These data will be visible for all users and they will help you to engage in the platform

Do you speak any of these languages *

- English
- Deutsch
- Español
- Türkçe
- Italiano
- עברית

Select all languages that you know

Private data

These data will keep hidden in the platform and only the administrator will be able to consult them

Name *

Surname *

Gender *

Male
 Female

Education level *

Year of Birth *

Terms of Use

 I agree with these **Terms of Use ***

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[Terms of use](#)

Figure 3. Registration page

Highlight that the Platform is fully responsive, it can be used from different devices. Figure 4 shows an example of the registration form in a smartphone.



Figure 4. Registration page in a smartphone

3.2 Login

The login page (Figure 5) has links to the legal terms and to the help page with videos about how to use the Platform as an anonymous user and some training actions.

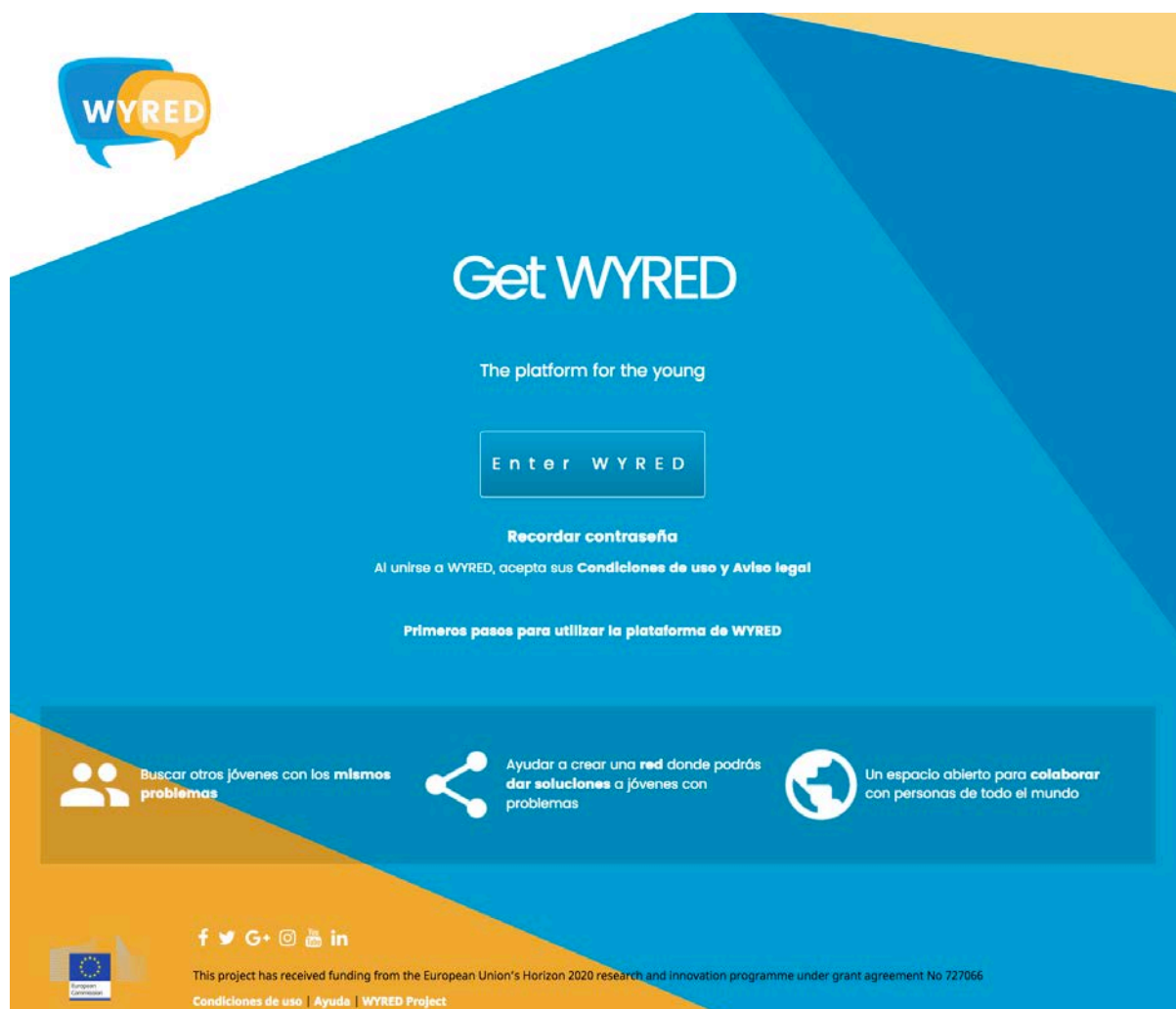


Figure 5. Login page

When a user clicks on the enter button, she is redirected to the CAS login page (Figure 6). After she introduces the username and password, she is redirected to the Platform. The central authentication services provides a way to have the user data in a different physical places.

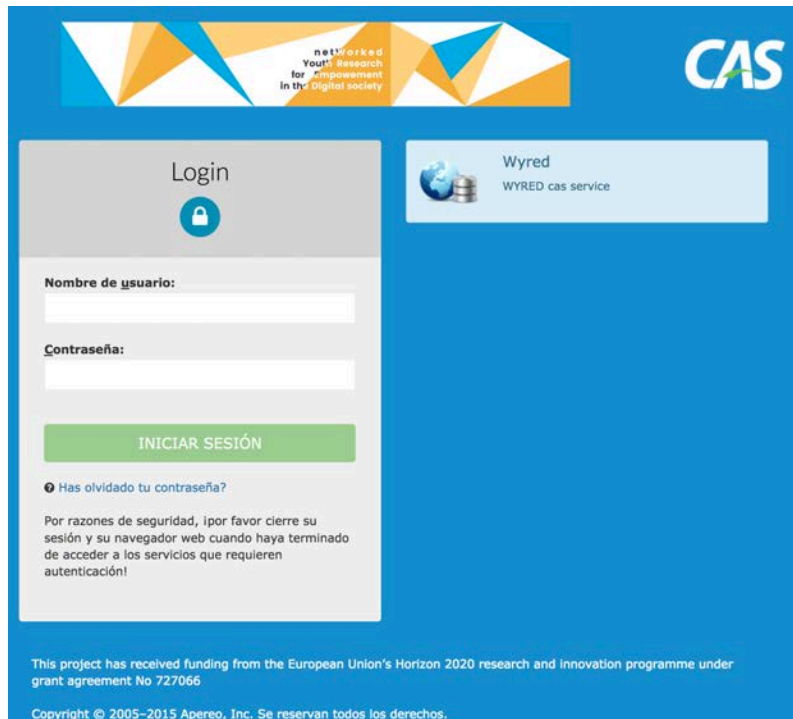


Figure 6. CAS login page

After login (also after finishing the registration process), the user will see a welcome message, a link to the Welcome community and a message to complete the inclusion form (Figure 7).

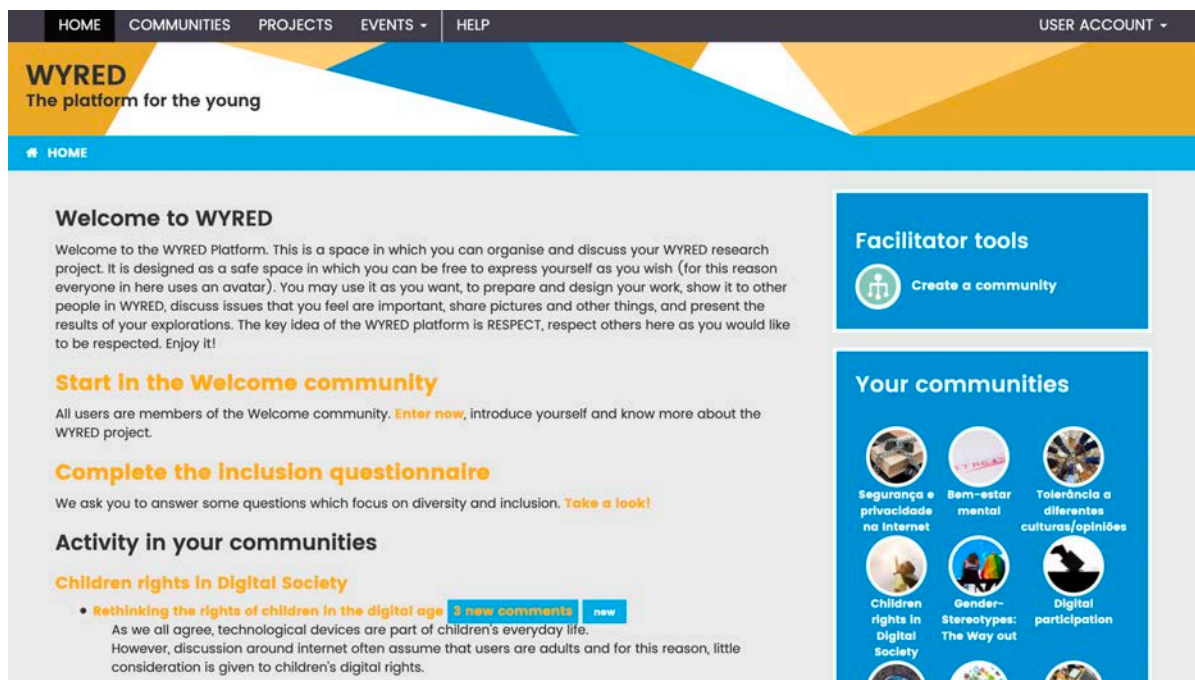


Figure 7. Welcome page

Moreover, a feed with the activity in your communities in the last two weeks is available in the homepage. User can see the last post and threads published in the forums of your communities (Figure 8).

Also, at the end of the homepage, there is a section with news from the public project website.

Regarding the activity related to the research projects, last projects uploaded to the Platform in the public communities are visible in a block of the homepage.

The screenshot displays the 'Activity in your communities' section on the left and two project-related sections on the right.

Activity in your communities

Bem-estar mental

- Continue a discussão aqui **new**
Você acha que a tecnologia ou Internet pode influenciar a sua saúde mental? A tecnologia pode ajudar a melhorar o bem-estar dos jovens? Você acha que a Internet ou tecnologia como seu smartphone, tablets, computadores, influenciam você quando você sente estresse, depressão, ansiedade?

Segurança e privacidade na internet

- Continue a discussão aqui **new**
Você sente que seus dados estão sendo rastreados quando você está online? Isso faz você mudar seu comportamento? Que níveis de confiança você tem com o mundo online? Deve suas buscas ser seu negócio, e você deve se sentir livre para pesquisar o que quiser, sempre que quiser?

Tolerância a diferentes culturas/opiniões

- Continue a discussão aqui **new**
Esta comunidade está focada em obter suas opiniões sobre o impacto da tecnologia no relacionamento entre pessoas de diferentes origens culturais e diferentes idéias e opiniões. Você acha que a Internet pode influenciar este tópico?

News about WYRED

Study about the usability of the WYRED Platform | 20/07/2019
The WYRED ecosystem is the technological ecosystem developed as part of WYRED. The main aim of the

Influencers on social media: the older generation's opinion | 21/06/2019
For those of us who are fortunate enough to have grandparents, we've all known that moment where

Webinar: Who is watching us? Considerations for a networked world | 05/02/2019
Doğa Schools, as part of the WYRED project, organize on 7th February from 12:10 to 12:50 CET a webinar

Community activity cards (top right):

- Children rights in Digital Society
- Gender-Stereotypes: The Way out
- Digital participation
- Self-Image online
- Our Digital Footprints-protecting ourselves
- Training for facilitators

1 of 2 **siguiente >**

Last projects (bottom right):

- Digital Activism, Rights and Getting Involved
- Take Back The Power Podcast
- Take Back the Power 2 More projects
- Take Back The Power

Figure 8. Activity in the user communities and news about WYRED in the homepage

3.3 Help

The help page is also available for logged users but shows more videos related to the functionality available for young people and facilitators (Figure 9).

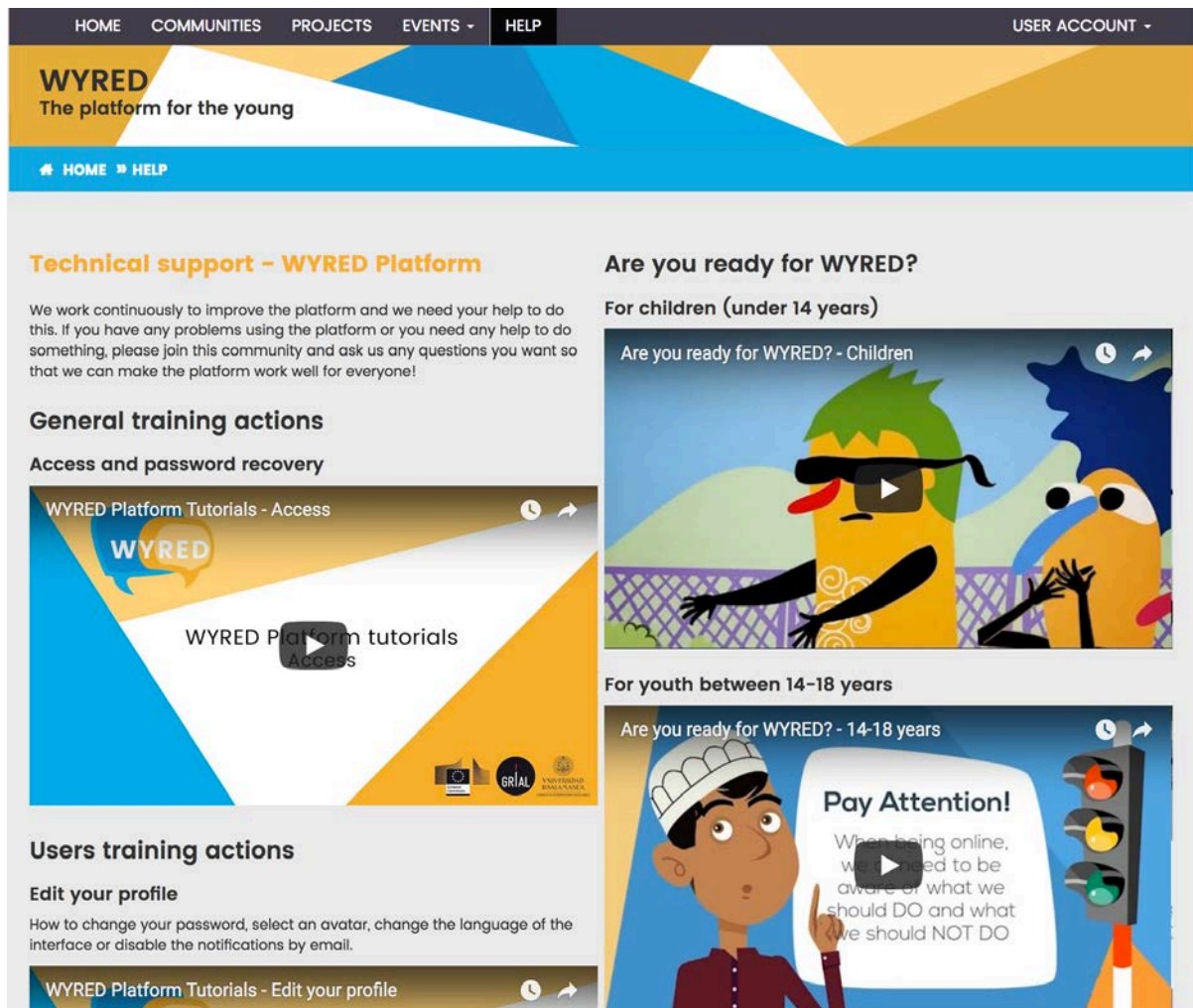


Figure 9. Help page

3.4 Take part in a community

The user can also see the available public communities in the page for the communities (Figure 10). This page is composed by three main parts: (1) information about the total number of communities and a set of tools to filter them; (2) a column with information of your own communities and the tools for facilitators (in case that the user has that role); (3) and a list of communities with the picture, title, description and language or languages used in the community.

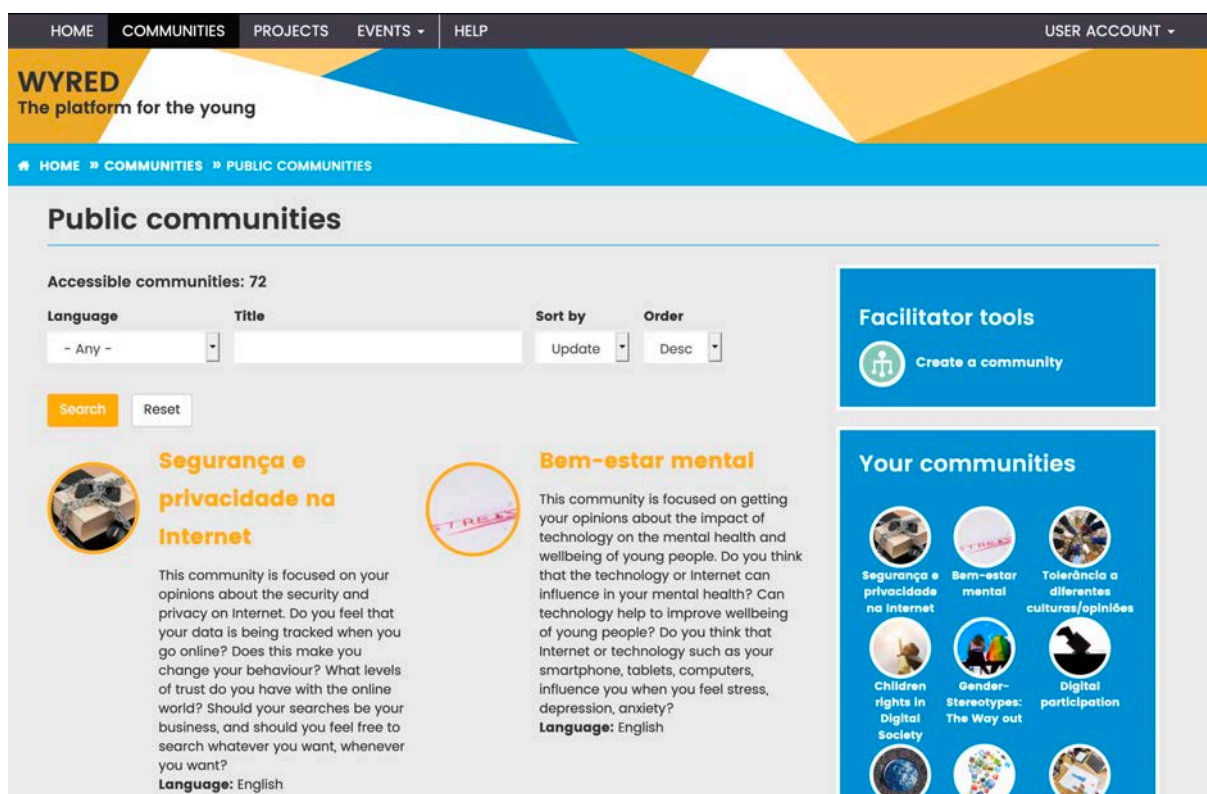


Figure 10. Public communities page

The user can subscribe to all communities that she is interested in order to take part. When a user enters to a public community when she is not a member, she can see a link to subscribe or join to the community (Figure 11).

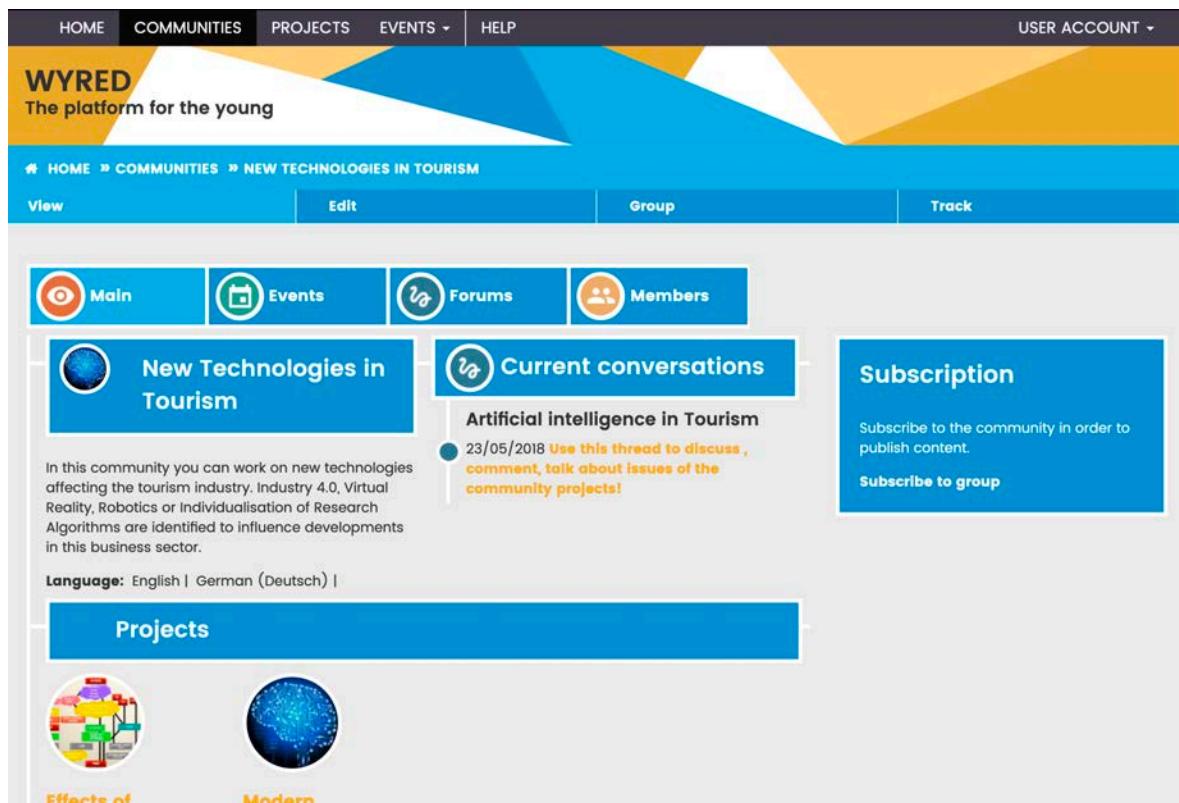


Figure 11. A community page when the user is not a member

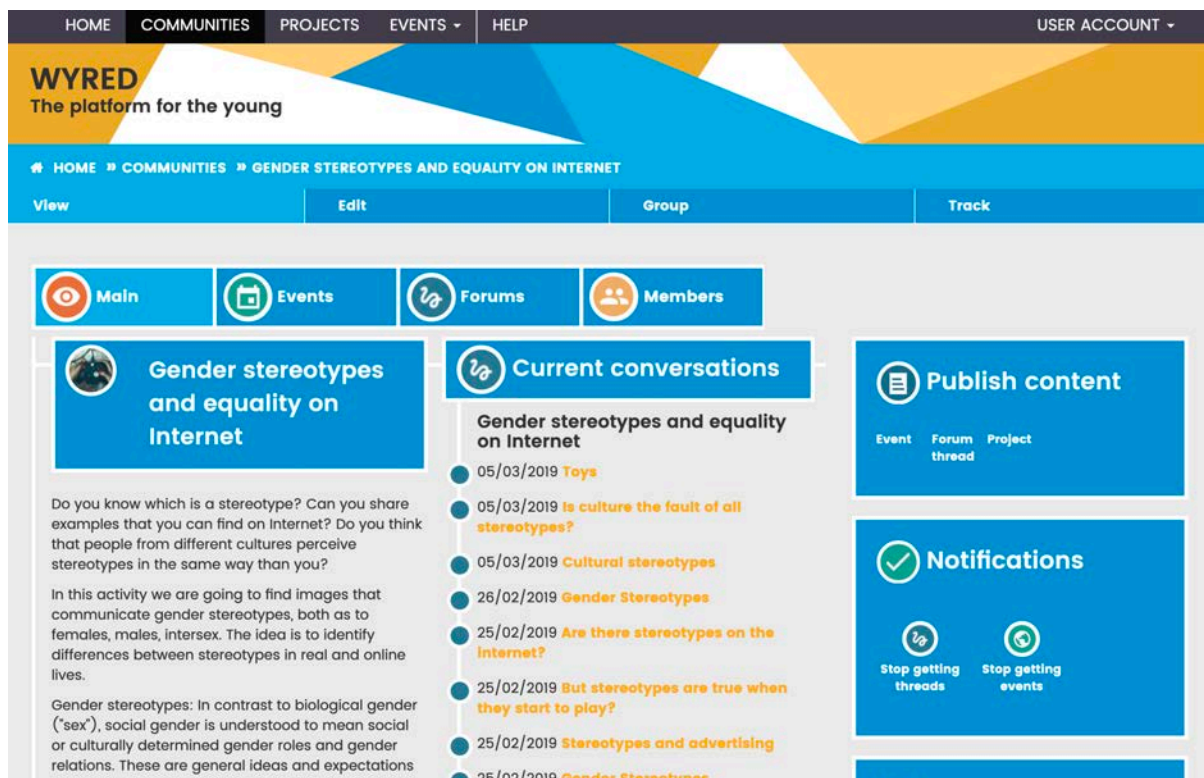


Figure 12. A community page when the user is a member

When a user is member of a community, she can see more tools to interact and participate (Figure 12). In particular, the user has publication tools to create new events, forum threads or projects inside the community; notification tools to receive notifications of activity inside the community; and a link to unsubscribe.

Regarding the notifications, when a user becomes member of a community, the notifications are enabled by default for threads and events. The notification related to the comments in the forum threads are inside each thread, so a user can subscribe to the comments of a particular thread instead all of them. Moreover, when a user writes in a forum thread, the user is subscribed automatically to the comments' notification of that thread.

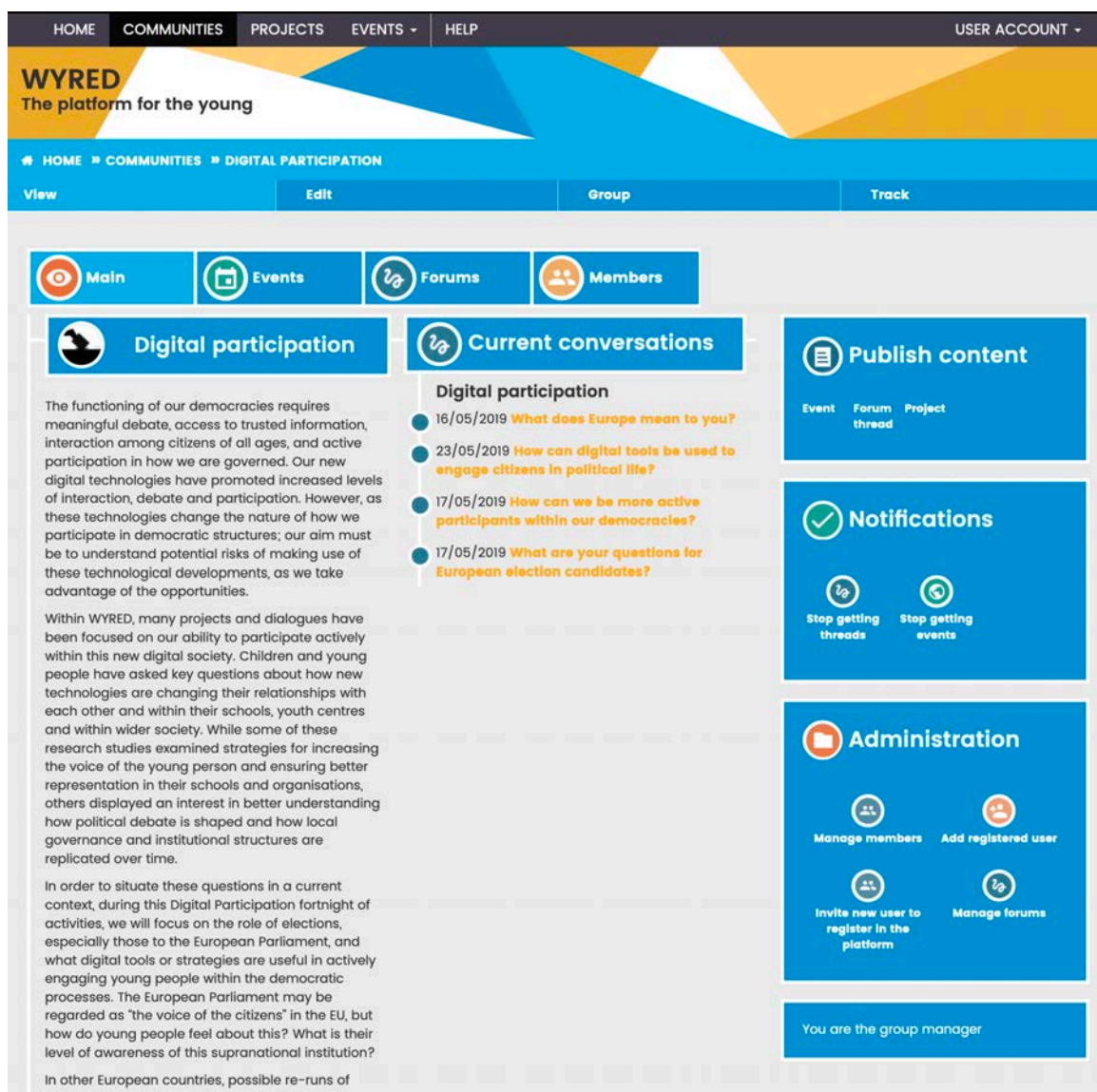


Figure 13. A community page when the user is a facilitator of the community

On the other hand, when a user is facilitator in a community, there are more tools available for him. In particular, a block named “Administration” is enabled (Figure 13). The facilitator has tools for:

- Manage community members.
- Add registered users to the community. This is the only way to add members to a private community because is not visible in the communities list.
- Invite new users to register in the Platform and join to the community.
- Manage the forums structure (Figure 14).

Furthermore, the facilitator can subscribe to the notifications related to new members' subscriptions in the community.

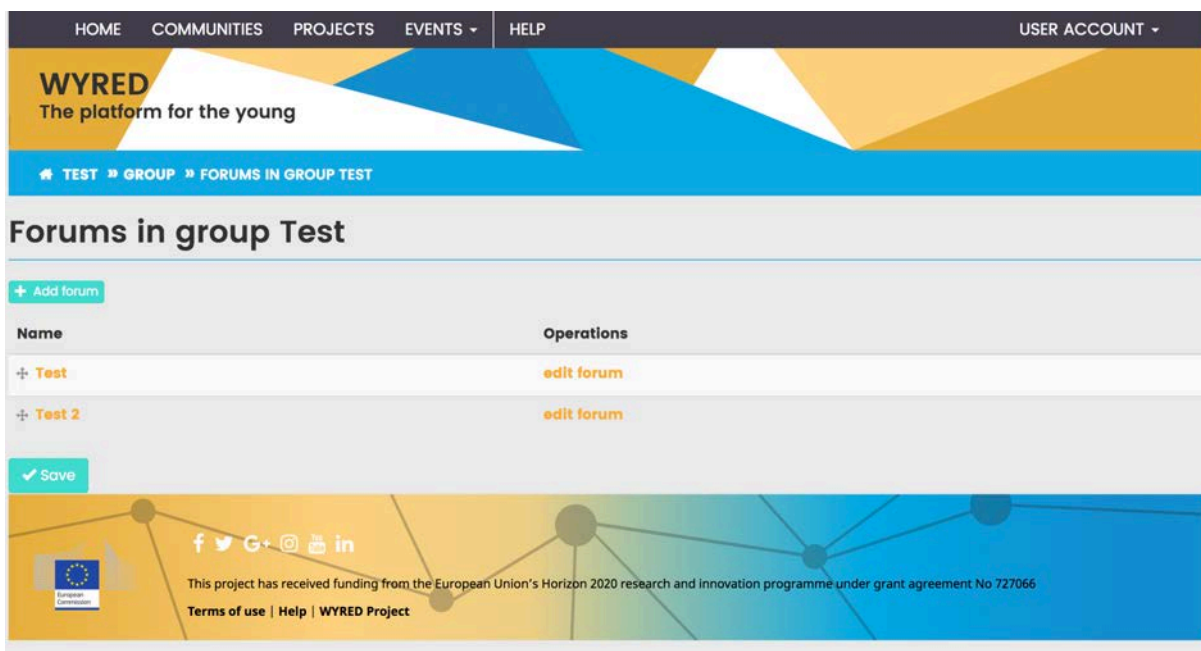
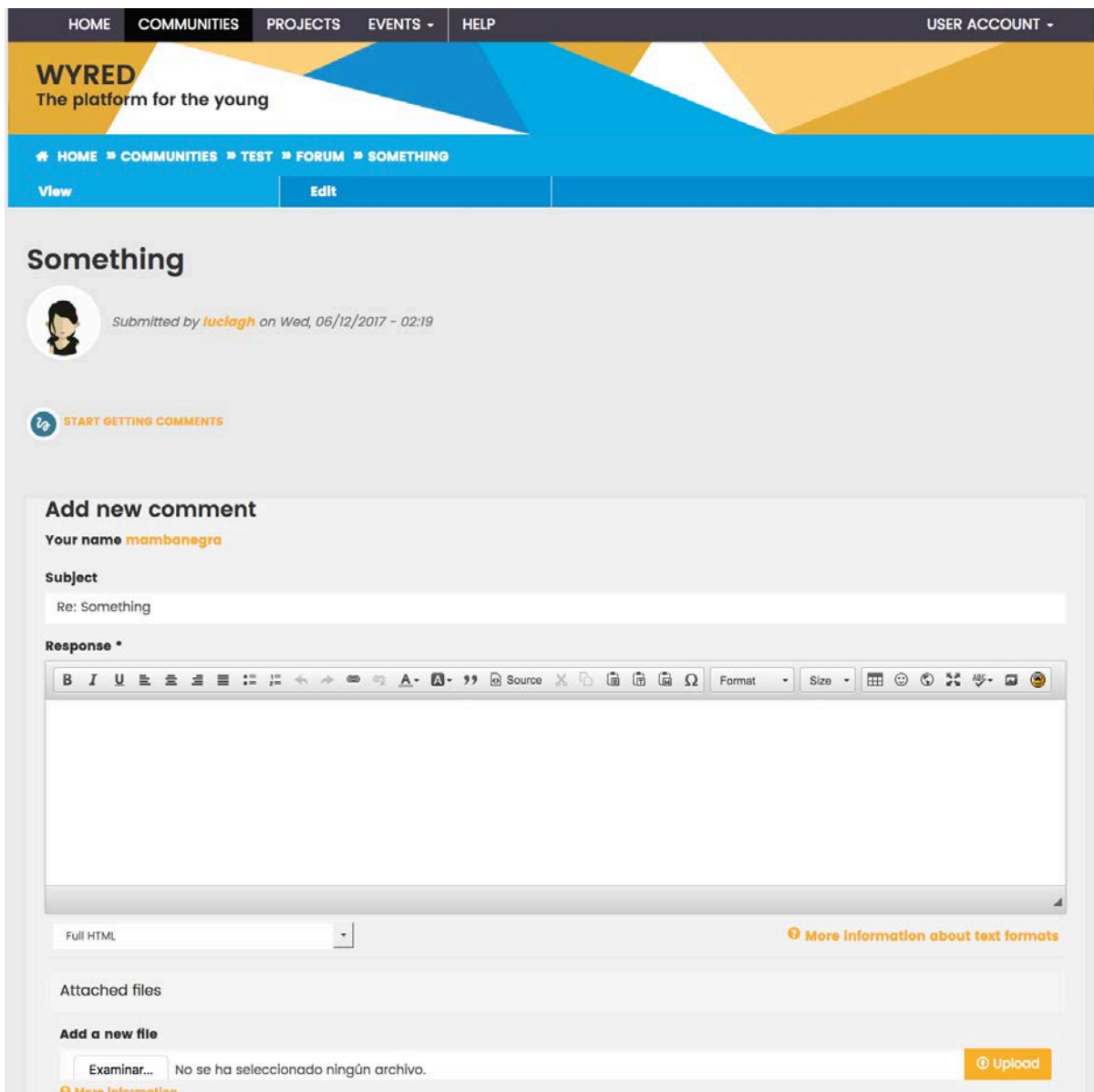


Figure 14. Tool for managing forums structure inside a community

The members and facilitators can participate in the forum threads. The way to participate is to write a comment or post with text, pictures or attached files (Figure 15).




HOME COMMUNITIES PROJECTS EVENTS HELP USER ACCOUNT


WYRED
The platform for the young

HOME > COMMUNITIES > TEST > FORUM > SOMETHING

View Edit

Something

 Submitted by **luclagh** on Wed, 06/12/2017 - 02:19

 **START GETTING COMMENTS**

Add new comment

Your name **mambanegra**

Subject

Re: Something

Response *

B I U [List icons] [Link icon] [Text color icon] [Background color icon] [Source icon] [Undo icon] [Redo icon] [Omega icon] Format - Size - [Table icon] [Smiley icon] [Globe icon] [Refresh icon] [ABC icon] [Emoji icon]

Full HTML [More information about text formats](#)

Attached files

Add a new file

Examinar... No se ha seleccionado ningún archivo.

[More Information](#)

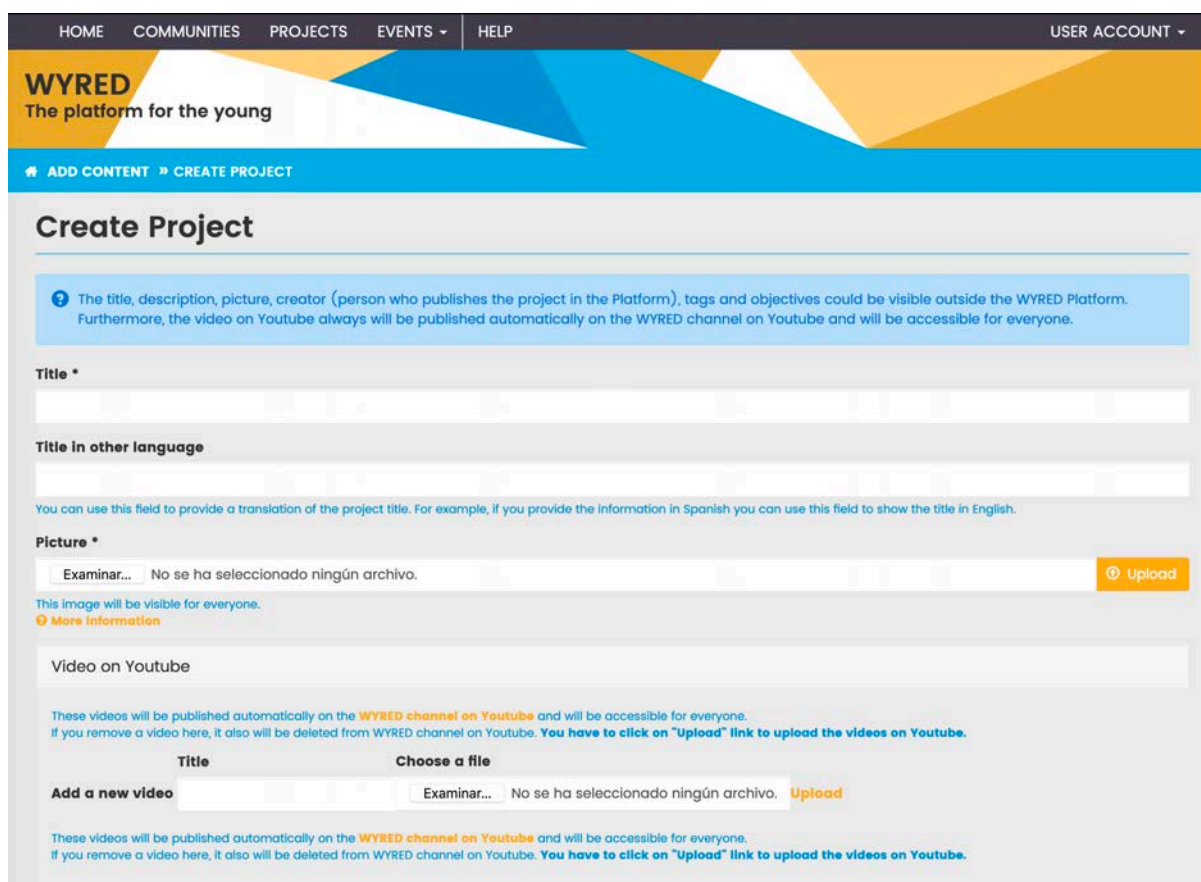
Figure 15. A forum thread where the user can participate

3.5 Research projects

Young people in each community will define and work in their own research projects. When they finish their projects, they will share in the Platform. The facilitators of the community will create these research projects inside the community in which have been developed.

There are a lot of information that can be shared about a project, most of them are visible for all users of the Platform by default. Highlight two elements in this form (Figure 16). First, the “Video on Youtube” field to publish videos automatically on the WYRED channel on Youtube. Second, a set of fields to share the results of the project, with a required field to configure the visibility of the result - only visible inside the community, visible for all users of the Platform, visible outside the Platform -.

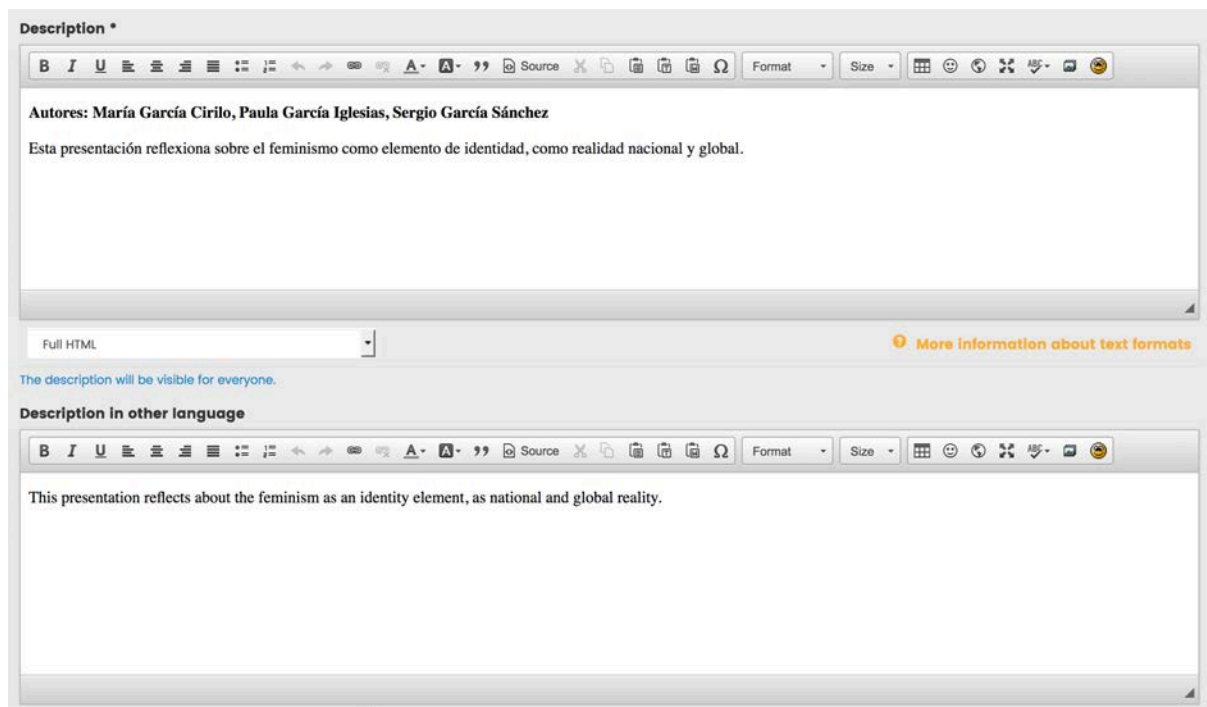
Besides, the projects can be uploaded in any language but there are two fields to provide a short version in English, both title and description (Figure 17), so all people can understand the project aim.



The screenshot shows the 'Create Project' form in the WYRED platform. At the top, there is a navigation bar with 'HOME', 'COMMUNITIES', 'PROJECTS', 'EVENTS', 'HELP', and 'USER ACCOUNT'. Below the navigation bar is a header with the WYRED logo and the tagline 'The platform for the young'. The main content area is titled 'Create Project' and contains several sections:

- Informational box:** A blue box with a question mark icon stating: "The title, description, picture, creator (person who publishes the project in the Platform), tags and objectives could be visible outside the WYRED Platform. Furthermore, the video on Youtube always will be published automatically on the WYRED channel on Youtube and will be accessible for everyone."
- Title *:** A text input field for the project title.
- Title in other language:** A text input field for a translation of the project title. Below it, a note says: "You can use this field to provide a translation of the project title. For example, if you provide the information in Spanish you can use this field to show the title in English."
- Picture *:** A file upload field with a placeholder 'Examinar...' and a note 'No se ha seleccionado ningún archivo.' An 'Upload' button is visible. Below it, a note states: "This image will be visible for everyone." and a link for 'More information'.
- Video on Youtube:** A section for uploading videos. It includes a note: "These videos will be published automatically on the WYRED channel on Youtube and will be accessible for everyone. If you remove a video here, it also will be deleted from WYRED channel on Youtube. You have to click on 'Upload' link to upload the videos on Youtube." Below this, there is a 'Title' field and a 'Choose a file' field with a placeholder 'Examinar...' and a note 'No se ha seleccionado ningún archivo.' An 'Upload' button is also present.

Figure 16. Form to create and share research projects



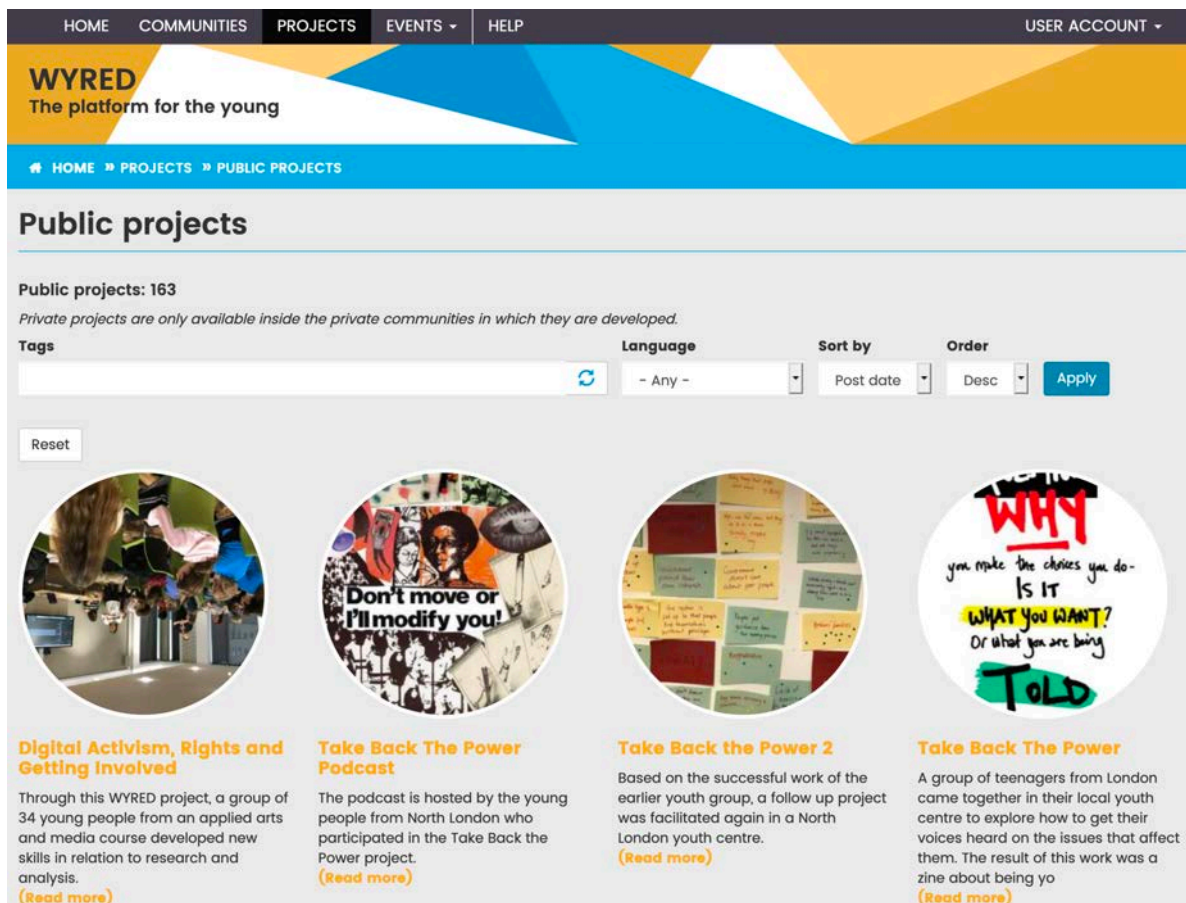
The screenshot shows a web form for creating project descriptions. It is divided into two sections: 'Description' and 'Description in other language'. Both sections feature a rich text editor with a toolbar containing icons for bold, italic, underline, bulleted list, numbered list, link, unlink, source, undo, redo, and a 'Format' dropdown. The 'Description' section contains the text: 'Autores: María García Cirilo, Paula García Iglesias, Sergio García Sánchez' followed by 'Esta presentación reflexiona sobre el feminismo como elemento de identidad, como realidad nacional y global.' Below the editor is a 'Full HTML' dropdown and a link for 'More information about text formats'. A note states 'The description will be visible for everyone.' The 'Description in other language' section contains the text: 'This presentation reflects about the feminism as an identity element, as national and global reality.'

Figure 17. Detail of the form to create projects with information in two languages

All public project (facilitator can create private projects only visible in the community) are available in a page inside the Platform, the projects page (Figure 18). This page has two main parts, at the beginning information about the total number of projects and a set of filters to find and sort the available projects. The second part is a set of thumbnails with the title and a brief description of the research projects.

Noteworthy that a tags field was included in the research project description in order to facilitate the filtering process. The tags were getting from the answers of young people during the first Delphi. Users can search by tags to find a Project.

User can click in any of the projects and get detailed information about it. Figure 19 shows a real research project. Users inside the Platform can give 1 to 5 stars to the projects as a way to evaluate it.



HOME COMMUNITIES PROJECTS EVENTS HELP USER ACCOUNT

WYRED

The platform for the young

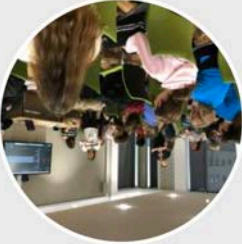
HOME PROJECTS PUBLIC PROJECTS

Public projects

Public projects: 163

Private projects are only available inside the private communities in which they are developed.


Tags Language - Any - Sort by Post date Order Desc



Digital Activism, Rights and Getting Involved

Through this WYRED project, a group of 34 young people from an applied arts and media course developed new skills in relation to research and analysis.


[\(Read more\)](#)



Take Back The Power Podcast

The podcast is hosted by the young people from North London who participated in the Take Back the Power project.


[\(Read more\)](#)



Take Back the Power 2

Based on the successful work of the earlier youth group, a follow up project was facilitated again in a North London youth centre.

[\(Read more\)](#)



Take Back The Power

A group of teenagers from London came together in their local youth centre to explore how to get their voices heard on the issues that affect them. The result of this work was a zine about being yo

[\(Read more\)](#)

Figure 18. Projects page

User can click in any of the projects and get detailed information about it. Figure 19 shows a real research project. Users inside the Platform can give 1 to 5 stars to the projects as a way to evaluate it.

The screenshot shows the WYRED platform interface. At the top, there is a navigation bar with 'HOME', 'COMMUNITIES', 'PROJECTS', 'EVENTS', 'HELP', and 'USER ACCOUNT'. Below this is a banner for 'WYRED The platform for the young'. A breadcrumb trail reads: 'HOME » COMMUNITIES » CHILDREN RIGHTS IN DIGITAL SOCIETY » PROJECT » TAKE BACK THE POWER PODCAST'. Below the breadcrumb are three tabs: 'View', 'Edit', and 'Track'. The main content area is titled 'Take Back The Power Podcast'. It features a circular image with the text 'Don't move or I'll modify you!'. To the right of the image is a description: 'The podcast is hosted by the young people from North London who participated in the Take Back the Power project. The young people examine the complexity of the issues that lead to violence involving young people in their community and look to how to deal with these issues from a rights perspective.' Below the description are 'Tags: economy | education | gender | violence |', 'Language: English', and a rating section: 'Vote: [5 stars] Your rating: 5 Average: 5 (1 vote)'. There are two side panels: 'Objectives' and 'Community'. The 'Objectives' panel contains the text: 'To understand complexity within the lives of young people in urban environments to develop a means of articulating and sharing these experiences'. The 'Community' panel contains the text: 'This project has been developed in the community Children rights in Digital Society.' Below the 'Objectives' panel is a 'Results' section with a blue header. Under 'Results', there is a link to a PDF file: 'Teenage Social Conditions Podcast' and 'PYE Project- TBTP Podcast.pdf'. Below the link is the text: 'Link to the podcast within the file'.

Figure 19. Project details

Moreover, although projects are always associated to a community in which people can discuss about the project, below each project the users can comment directly so discussion can emerge directly from the research projects developed by children and young people (Figure 20).

The screenshot shows the 'Comments' section of the WYRED platform. It features a blue header with the word 'Results'. Below the header is a link to a PDF file: 'Teenage Social Conditions Podcast' and 'PYE Project- TBTP Podcast.pdf'. Below the link is the text: 'Link to the podcast within the file'. The main section is titled 'Comments' and has a sub-header 'Add new comment'. Below this is a form with a 'Your name' field containing the text 'mambanegra', a 'Subject' field, and a 'Comment' field. The 'Subject' field contains the text 'Re: Take Back The Power Podcast'. Below the 'Comment' field is a rich text editor toolbar with various icons for text formatting, alignment, and insertion. The toolbar includes icons for bold, italic, underline, text color, background color, bulleted list, numbered list, link, unlink, source, code, quote, indent, outdent, undo, redo, format, size, font face, font size, and emoji.

Figure 20. Comments in research projects inside the WYRED Platform

Finally, the public projects are available through an RSS channel (<https://platform.wyredproject.eu/projects.xml>). This feed is used to embed the projects in the WYRED website and share them automatically on Facebook and Twitter profiles (<https://wyredproject.eu/category/research-projects/>) (Figure 21).

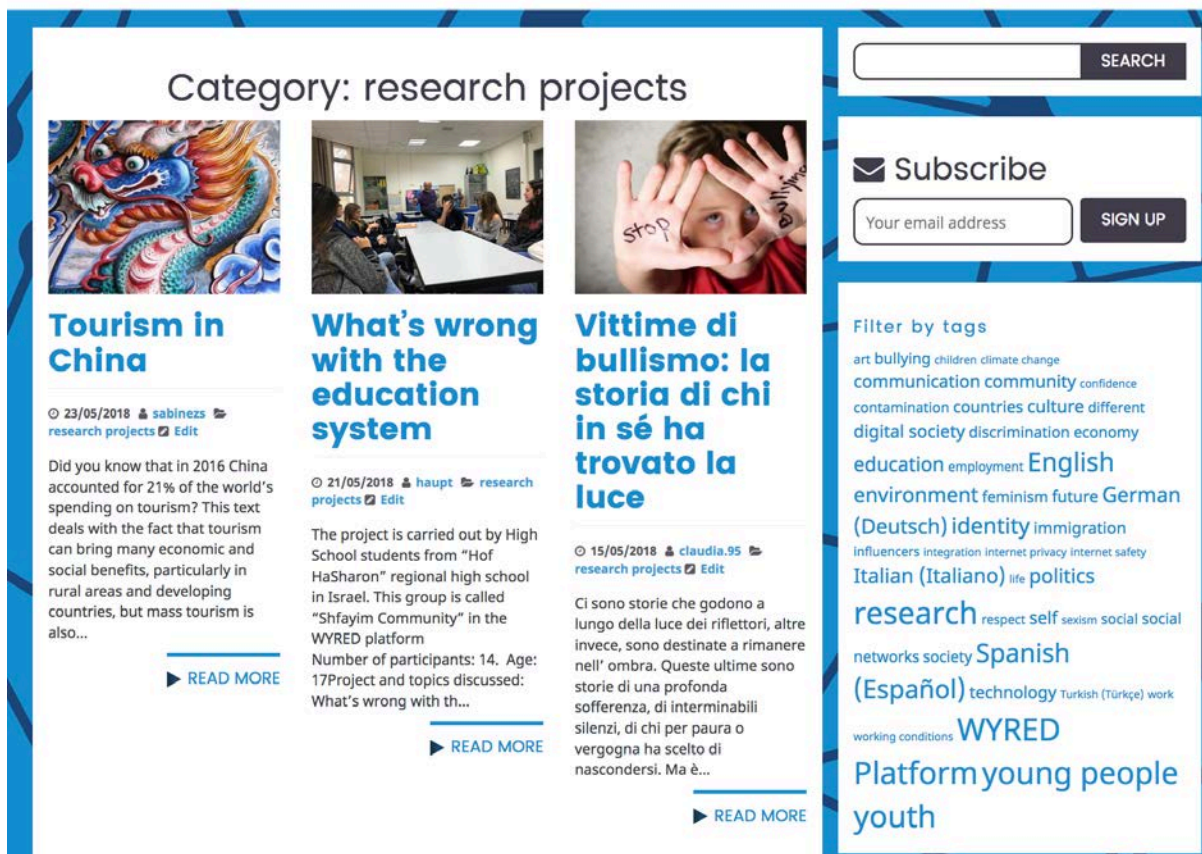


Figure 21. Projects in the WYRED public website

3.6 Events

Inside each community, the members can create events related to the community. These events are available in a calendar inside the community and also in a global calendar in the events page (Figure 22). Furthermore, the facilitators can create new events for all users in the community with the “New event” tool.

The screenshot shows the WYRED Events page. At the top, there is a navigation bar with links for HOME, COMMUNITIES, PROJECTS, EVENTS (selected), and HELP. A user account dropdown is visible on the right. Below the navigation bar is a header with the WYRED logo and the tagline "The platform for the young". A breadcrumb trail shows "HOME » EVENTS".

The main content area features a calendar for November 2017. The calendar is a grid with columns for days of the week (Mon to Sun) and rows for dates. Several events are listed in orange boxes within the calendar cells:

- November 8: Eggenburg Explorations
- November 9: Doga Testing of the platform
- November 11: Getting Started
- November 11: Young people talking at the InetIII conference
- November 15: Partners test

Navigation arrows for "Prev" and "Next" are located above the calendar. To the right of the calendar, there are three circular buttons for "05 Month", "20 Week", "16 Day", and "18 Year". Below these is a "Publish events" section with a "New event" button and a pencil icon. At the bottom right, there is a "Your communities" section with three icons: "Test", "Welcome", and "Technical support - WYRED Platform".

Figure 22. Events page

3.7 User's profile and inclusion form

Finally, each user has a personal page his own public information inside the Platform (Figure 23).

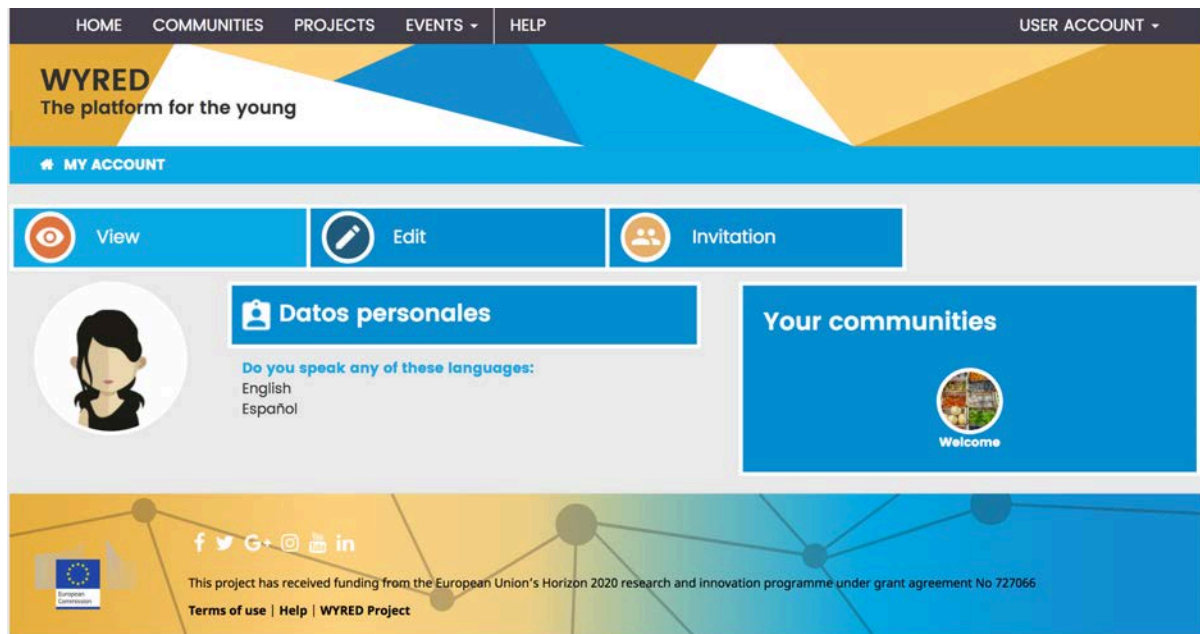


Figure 23. The user's profile

The user has also access to the inclusion form in order to improve and study about the diversity in the WYRED context (Figure 24). The inclusion form is not mandatory, but all users see a warning message until they complete it.

The answers of the inclusion form are saved outside the Platform, in a different database, as a secure measure.

Besides, a script has been developed in order to download the inclusion data in an anonymous way. The information is formatted in a CSV file in order to analyze it.

HOME COMMUNITIES PROJECTS EVENTS ▾ HELP USER ACCOUNT ▾

WYRED

The platform for the young

Inclusion form

Dear participant,

In empowering children and young people to get heard in the digital society, a core aim of the WYRED project is to include a broad range of different voices, ideas and opinions into the project. We regard diverse perspectives to be a most valuable resource in dealing with (future) societal changes or digital developments. Therefore, in the following we ask you to answer some questions which focus on diversity and inclusion.

Questions marked with asterisk (*) are required fields.

Educational or work background

What is your highest level of education? *

- Select -

At the moment are you student in formal education? *

- Select -

If you are no student in formal education: What are you doing in the moment?

No answer

Socio-economic status

What is the highest school level attained by your mother? *

- Select -

What is the highest school level attained by your father? *

- Select -

Geographic location

Where do you live? *

- Select -

Where do you study or work? *

- Select -

Migration

Which language is mainly spoken in your family? *

- Select -

Where were you born? *

- Select -

Where was your father born? *

- Select -

Where was your mother born? *

- Select -

Ethnic background

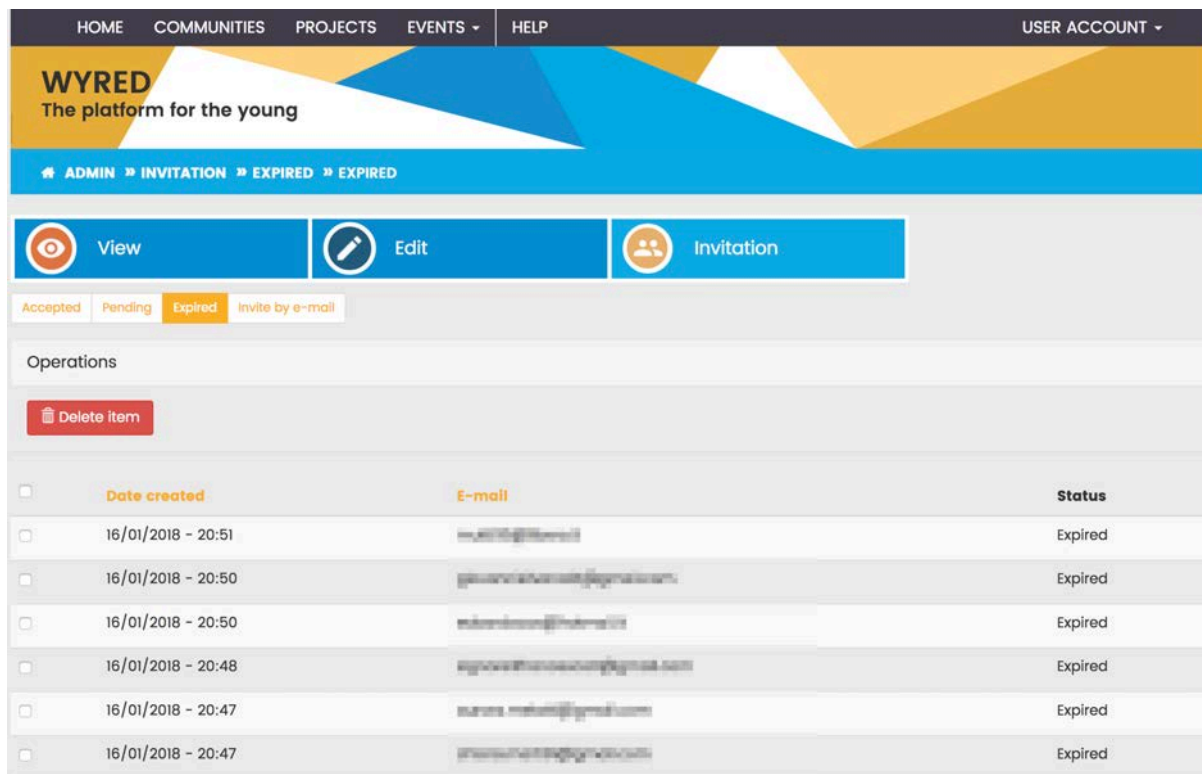
Figure 24. Inclusion form

3.8 Managing invitations

Finally, the user with a facilitator role can manage the invitations sent by her (Figure 25). She can find a link to this tool in his profile. Each facilitator can see the accepted invitations (this means that the user finished the registration process), the pending invitations (the user can still use the invitation link to finish the registration), the expired invitations (the invitation link expires after one month) and a form to send invitations without join the new user to a specific community, only to the Welcome community by default. Regarding the expired invitations, the facilitator can delete them in order to send them again (Figure 26).

Date created	Name	E-mail	Joined	Active
26/02/2018 - 11:35	Julia_Brumbar	julia.brumber@open.ac.uk	Mon, 26/02/2018 - 11:53	Active
25/01/2018 - 23:20	shirley	shirley@open.ac.uk	Sat, 27/01/2018 - 18:15	Active
16/01/2018 - 20:53	shirley	shirley@open.ac.uk	Thu, 18/01/2018 - 23:56	Active
16/01/2018 - 20:53	shirley	shirley@open.ac.uk	Wed, 17/01/2018 - 13:30	Active
16/01/2018 - 20:53	Freda	freda.c@open.ac.uk	Tue, 23/01/2018 - 22:01	Active
16/01/2018 - 20:52	shirley	shirley@open.ac.uk	Wed, 17/01/2018 - 16:37	Active
16/01/2018 - 20:52	shirley	shirley@open.ac.uk	Wed, 17/01/2018 - 14:12	Active
16/01/2018 - 20:51	shirley	shirley@open.ac.uk	Tue, 23/01/2018 - 22:02	Active
16/01/2018 - 20:49	shirley	shirley@open.ac.uk	Wed, 17/01/2018 - 21:50	Active
16/01/2018 - 20:49	Mary	mary.m@open.ac.uk	Wed, 17/01/2018 - 12:44	Active
16/01/2018 - 20:48	shirley	shirley@open.ac.uk	Wed 24/01/2018 - 17:24	Active

Figure 25. Accepted invitations



The screenshot shows the WYRED platform interface. At the top, there is a navigation bar with links for HOME, COMMUNITIES, PROJECTS, EVENTS, HELP, and USER ACCOUNT. Below this is a header with the WYRED logo and the tagline "The platform for the young". A breadcrumb trail indicates the current location: ADMIN > INVITATION > EXPIRED > EXPIRED. Below the breadcrumb, there are three main action buttons: View, Edit, and Invitation. A filter bar shows "Expired" selected, with other options being Accepted, Pending, and Invite by e-mail. Under the "Operations" section, there is a "Delete item" button. The main content is a table of expired invitations.

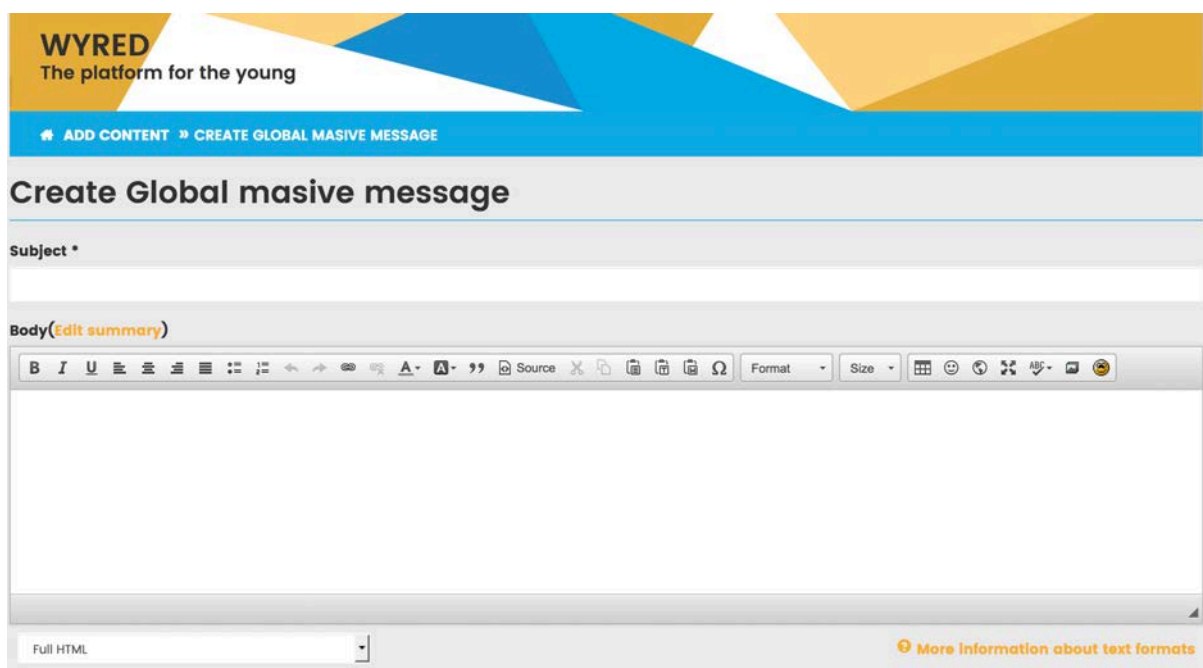
<input type="checkbox"/>	Date created	E-mail	Status
<input type="checkbox"/>	16/01/2018 - 20:51	h.elli@fhnw.ch	Expired
<input type="checkbox"/>	16/01/2018 - 20:50	giovanna.vicente@ignacion.es	Expired
<input type="checkbox"/>	16/01/2018 - 20:50	mlombard@fhnw.ch	Expired
<input type="checkbox"/>	16/01/2018 - 20:48	spencer.thornton@gnod.com	Expired
<input type="checkbox"/>	16/01/2018 - 20:47	maria.melini@gnod.com	Expired
<input type="checkbox"/>	16/01/2018 - 20:47	thornton@gnod.com	Expired

Figure 26. Expired invitations

3.9 Massive messages

This feature allows to send a message by email to all users in the Platform respecting their privacy because admin or facilitators cannot see their emails accounts. This tool is only available for facilitators with permission to create communities. It is not a communication tool, it is only to contact all users to send them relevant information, because there is no other way to send information to all the members of the Platform.

The message is composed by title and body (Figure 27).



The screenshot shows the 'Create Global massive message' interface. At the top, there is a header with the WYRED logo and the tagline 'The platform for the young'. Below the header, there are navigation links: 'ADD CONTENT' and 'CREATE GLOBAL MASIVE MESSAGE'. The main heading is 'Create Global masive message'. Below this, there is a 'Subject *' field. The main body is a rich text editor with a toolbar containing various formatting options like bold, italic, underline, text color, background color, link, unlink, source, insert link, insert image, insert video, insert audio, insert table, insert code, and insert quote. The editor is currently empty. At the bottom left, there is a dropdown menu set to 'Full HTML'. At the bottom right, there is a link for 'More information about text formats'.

Figure 27. Send a massive message

4 Usability studies

Two usability studies were carried out during the development of the WYRED Ecosystem. Both studies were focused on the WYRED Platform, the main element of the technological infrastructure of the project.

First, a study with young people was conducted with students of the subject Communication Techniques and Skills of the Degree in Social Education (University of Salamanca, Spain). 96 students worked with the WYRED Platform for 17 days (4-21 December 2017) with different roles, facilitator and participant, in different communities. The System Usability Scale (SUS) was used to measure the usability (Figure 28).

Evaluate the WYRED platform
Exit and clear survey

* 10 Indicate your agree or disagree level for each of the following statements, qualifying the answer between the values 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), 5 (strongly agree)

	1	2	3	4	5
I think that I would like to use this platform frequently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found the platform unnecessarily complex	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I thought the platform was easy to use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I think that I would need the support of a technical person to be able to use this platform	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found the various functions in this platform were well integrated	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I thought there was too much inconsistency in this platform	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would imagine that most people would learn to use this platform very quickly	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I found the platform very cumbersome to use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I felt very confident using the platform	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I needed to learn a lot of things before I could get going with this platform	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 28. SUS questionnaire

70 students started the questionnaire, 43 of them completed it. All facilitators have answered (12). Most of them have used the platform in Spanish. All the information about the study and the main results are published in (García-Peñalvo, García-Holgado, Vázquez-Ingelmo, & Seoane-Pardo, 2018; García-Peñalvo, Vázquez-Ingelmo, García-Holgado, et al., 2019).

A second study was conducted targeting facilitators to reach insights about how these users value the WYRED Platform usability. This usability study was performed through a combination of two



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techniques. First, a heuristic analysis following the heuristics proposed by Nielsen (Nielsen, 1994) was executed with four experts with different profiles. This analysis was complemented with the results of the Computer System Usability Questionnaire (CSUQ) (version 3) (Sauro & Lewis, 2012) to collect the experience of real users. The combination of both techniques provides a comprehensive status of the WYRED Platform's usability, to fix any issue and improve its features and engagement. The study and the main results are published in (García-Peñalvo, Vázquez-Ingelmo, & García-Holgado, 2019).

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